

## ABSTRACT OF THE DISCLOSURE

5 A safety relief valve is provided that comprises a body comprising a chamber therein and an inlet and an outlet, the inlet comprising an inlet valve seat; a disk member closable on the inlet valve seat; and a mechanism in the body biasing the disk member to rest on the inlet valve seat with a set force such that when the pressure in the inlet exceeds a set pressure resulting from the set force, the disk member is lifted from the inlet valve seat, the mechanism comprising a combination of a coil spring and one or more disk springs stacked in series with the coil spring.

10 A method of preparing a coil spring for use in a pressure relief valve comprises measuring the spring rate of the coil spring and; modifying the spring so as to modify its spring rate to be within  $\pm 2\%$  of a desired spring rate.